



## County Residents Partner with FEMA to Secure Waterway

### Full Mitigation Best Practice Story

#### *Oakland County, Michigan*

**Oakland, MI** - Thanks to a two phased grant Bloomfield Township applied for through FEMA's Hazard Mitigation Grant Program (HMGP), the Franklin branch stream bank is a highlight of the community rather than a safety concern.



The Rogue River in Southeast Michigan is responsible for draining over 438 square miles of the most heavily populated areas of the region. When one of its four main river branches, the Franklin branch, began to show signs of serious deterioration and erosion, businesses and residents near the river were threatened. Bloomfield Township applied for the two phased grant to study hydraulics and repair the stream bank.

The star of this success story is not necessarily a single person or group, but instead results came through the cooperation of numerous people, groups and agencies, along with the HMGP. Without every single one of these players, the project would not have been as profitable as it was.

The Franklin Stream Bank Stabilization Project focused on four areas of stream bank erosion along a one-mile stretch of the Branch. Each site was ranked a priority based on the threat to infrastructure, such as sewers, homes, and roadways. In the past, the standard engineering solution for rectifying stream bank erosion problems was to install hard armoring like riprap, concrete lining, or sheet piling.

As a community committed to the protection of its natural features, this project focused on the use of innovative engineering alternatives that included brush mattresses, live staking, fascines, pools and riffles, and vegetated geocell retaining walls. The 100-year floodplain elevation was not increased at any of the project sites. In addition, this project included an extensive reforestation phase. Among all four sites, a total of 911 new trees were planted which included American Sycamore, Silver Maple, Red Maple, Sugar Maple, River Birch, and White Pine.

The project has been met with rave reviews from the residents along the project corridor. At the onset of the project, a significant amount of effort was taken to ensure that resident concerns were addressed during the design of the project. During construction, the project team continued to address resident concerns and created an open forum through which the residents could have an impact on the development of the project as a whole. The engineering innovation and cooperation of all stakeholders involved in the project is witness to the importance and success of the Franklin and 14 Mile Road Project.

This project turned out to be a success in more ways than one. The community had struggled with stabilizing this stream bank for years, but the HMGP made mitigation possible. The project was extremely cost effective, which was a huge bonus for the community. The project has shown that cooperation and teamwork, along with mitigation, does pay off. The community is not only a safer place to live, but looks better as well.

Thanks to the close communication and cooperation of the Township government, residents, independent companies, and FEMA, the stream bank was stabilized and the safety of the buildings and residents in Bloomfield County has been insured in a cost-efficient, community-friendly manner.

#### Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region V**

State: **Michigan**

County: **Oakland County**

City/Community: **Bloomfield Hills**

#### Key Activity/Project Information

Sector: **Public**

Hazard Type: **Severe Storm; Flooding**

Activity/Project Type: **Flood-proofing; Vegetation Management**

Activity/Project Start Date: **03/2003**

Activity/Project End Date: **11/2006**

Funding Source: **Hazard Mitigation Grant Program (HMGP)**

Funding Recipient: **Local Government**

Funding Recipient Name: **Bloomfield Township**

Application/Project Number: **9999**

#### Activity/Project Economic Analysis

Cost: **\$2,143,512.00 (Estimated)**

#### Activity/Project Disaster Information

Mitigation Resulted From Federal  
Disaster? **Yes**

Federal Disaster #: **1346 , 10/17/2000**

Federal Disaster Year: **2000**

Value Tested By Disaster? **Unknown**

Repetitive Loss Property? **Unknown**

#### Reference URLs

Reference URL 1: **<http://www.fema.gov/government/grant/hmgp/index.shtm>**

Reference URL 2: **<http://www.bloomfieldtp.org/>**

## Main Points

- The Franklin Branch of the Rogue River in Southeast Michigan began to show signs of serious deterioration and erosion.
- Bloomfield Township applied for the two phased grant through FEMA's Hazard Mitigation Grant Program (HMGP) to study hydraulics and repair the stream bank.
- The Franklin Stream Bank Stabilization Project focused on four areas of stream bank erosion along a one-mile stretch of the Branch.
- This project focused on the use of innovative engineering alternatives that included brush mattresses, live staking, fascines, pools and riffles, and vegetated geocell retaining walls. A total of 911 trees were also planted.
- The stream bank was stabilized and the safety of the buildings and residents in Bloomfield County has been insured in a cost-efficient, community-friendly manner.



Bloomfield Area During Construction.



Bloomfield Area Post Project



Bloomfield Area Pre Project